Owner's Manual

TRIPP LITE SERIES

DisplayPort v1.4 Multi-Stream Transport Hubs

Models:

(DisplayPort Out)
B156-002-8K
B156-003-8K

(HDMI Out)
B156-002-H8K
B156-003-H8K

Purchased product may differ from image.

Este manual está disponible en español en la página de Eaton:
Tripplite.Eaton.com/support

Ce manuel est disponible en français sur le site Web de Eaton :
Tripplite.Eaton.com/support

Dieses Handbuch ist in deutscher Sprache auf der Eaton-Website verfügbar:
Tripplite.Eaton.com/support

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Powering Business Worldwide

Product Features

- Connect multiple monitors via the DisplayPort output on your computer to display the same image on each monitor, extend the desktop across monitors, or combine as one enlarged monitor in video wall mode.
- DisplayPort v1.4 and Multi-Stream Transfer (MST) compliant.
- DisplayPort and HDMI output models support UHD 4K resolutions up to 3840 x 2160 (60 Hz). See **System Requirements** for more information.
- Supports up to 36-bit Deep Color (12 bits per channel).
- Supports DTS-HD, Dolby True HD and 7.1-channel surround sound audio.
- Supports HDCP, EDID and DDC.
- Compliant with the Federal Trade Agreements Act (TAA) for GSA Schedule purchases.

System Requirements

- A computer with a DisplayPort v1.4 compatible graphics card (e.g., AMD Radeon with AMD Eyefinity Technology). Backward compatible with most DisplayPort 1.1a equipment running current graphics drivers. The feature set is limited to that of the attached equipment (e.g., you may be limited to displaying in Clone/Mirror mode only). Compatibility with older graphics cards is not guaranteed.
- macOS X does not support MST for NVIDIA and Intel Graphics Processor Units, limiting video display on the connected monitors to mirror mode.
- DisplayPort 1.4 bandwidth is 32.4 Gbps. Higher-resolution monitors take up more bandwidth.
- Although DisplayPort and HDMI monitors support video resolutions up to 3840 x 2160 on individual monitors, the number of 4K monitors connected at the same time is limited. For example, when connecting 4 monitors simultaneously, you will be limited to connecting 1080p monitors. Higher resolutions are possible when displaying in video wall mode (e.g., 3840 x 6480 in a 1x3 video wall, 11520 x 2160 in a 3x1 video wall, etc.)
- Maximum Resolution: The following chart explains the maximum resolution of both models. Source equipment (PC) requires a **DisplayPort 1.4** compatible video card.

Mode (output for DisplayPort or HDMI)		**Display 1**	**Display 2**
Video Wall Mode	1x2	3840 x 4320@ 60 Hz	
	2x1	7680 x 2160@ 60 Hz	
Extended Desktop Mode		3840 x 2160 @ 60 Hz	3840x2160 @ 60 Hz
Mirror Mode		3840 x 2160 @ 60 Hz	3840x2160 @ 60 Hz

System Requirements

Mode (output for DisplayPort or HDMI)		Display 1	Display 2	Display 3
Video Wall Mode	1x3	3840 x 6480@ 60 Hz		
	3x1	11520 x 2160@ 60 Hz		
Extended Desktop Mode		3840 x 2160 @ 60 Hz	3840x2160 @ 60 Hz	3840x2160 @ 60 Hz
Mirror Mode		3840x2160 @ 60 Hz	3840x2160 @ 60 Hz	3840x2160 @ 60 Hz
Notes: *• When in Mirror Mode, the same content may only display on 2 screens.* *• Under the circumstance of removing the graphics card driver software, it is possible to achieve the requirement of mirroring 3 screens.*				

- When utilizing an **8K source with 8K display(s)** connected to the output ports, there may be bandwidth issues that limit the capability of individual output ports.

Package Contents

- DisplayPort v1.4 Multi-Stream Transport Hub
- External Power Supply (Input: 100–240V, 50/60 Hz, 0.6A; Output: 5V 3A)
- Quick Start Guide

Optional Accessories

- P568-Series 4K @ 60 Hz HDMI Cables
- P580-Series DisplayPort 1.4 Cables

Installation

Notes:

- *Before installation, be sure your graphics driver is up-to-date by installing the latest driver available. The MST hub is backward compatible with most DisplayPort 1.1a equipment running current graphics drivers. Feature set is limited to the attached equipment's capabilities (e.g., you may be limited to displaying in Clone/Mirror mode only). Compatibility with older graphics cards is not guaranteed.*
- *Be sure the power to all connected devices is turned off prior to installation.*

1. Connect the hub's built-in cable to the computer's DisplayPort output.
2. Connect the included external power supply to the hub, and plug it into a surge protector, uninterruptible power supply (UPS) or power distribution unit (PDU). The green Power LED will illuminate.
3. Connect a monitor to an available output port on the hub.

   Note: *The maximum distance between the hub and the connected monitor must not exceed 15 ft. (4.6 m).*
4. Repeat step 3 for each additional monitor you are connecting.

Installation

5. Turn on the power to the connected monitors, then power on the source. The orange port LEDs will illuminate to indicate a signal is being received and video will appear on the connected monitors.
6. Use your video card's display settings screen to adjust how video is displayed on the connected monitors.

Installation Diagrams

B156-003-8K

Note: B156-002-8K *is identical to B156-003-8K except it has only two outputs.*

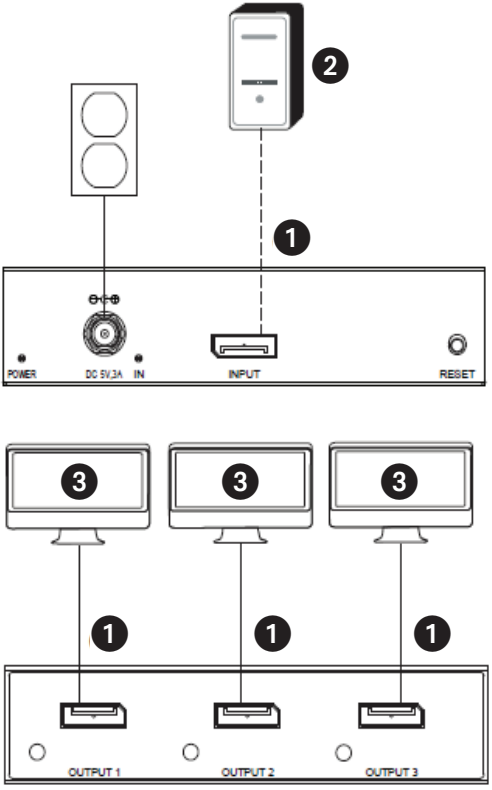
Cable connections

❶ Up to 15 ft. (4.5 m) DisplayPort cable at 4K / 60 Hz

Connected components

❷ DisplayPort source

❸ Monitor



Installation Diagrams

B156-003-H8K

Note: B156-002-H8K *is identical to B156-003-H8K except it has only two outputs.*

Cable connections

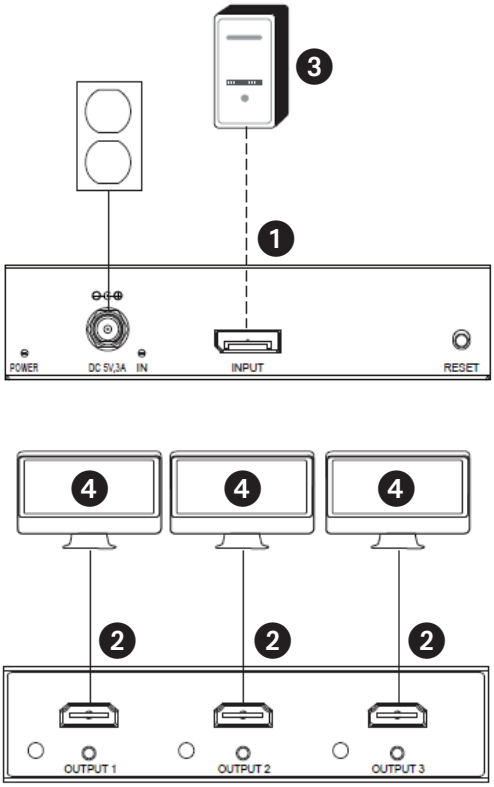
❶ Up to 15 ft. (4.5 m) DisplayPort cable at 4K / 60 Hz

❷ Up to 15 ft. (4.5 m) HDMI 2.0 cable at 4K / 60 Hz

Connected components

❸ DisplayPort source

❹ Monitor



Troubleshooting

If you are unable to get an acceptable image after following the installation instructions, try the troubleshooting tips below.

1. **Is your equipment running the latest graphics driver?** If not, download the latest graphics drivers for your equipment. The MST hub is backward compatible with most DisplayPort 1.1a equipment running current graphics drivers. The feature set is limited to the attached equipment's capabilities (e.g., you may be limited to displaying in Clone/Mirror mode only). Compatibility with older graphics cards is not guaranteed.
2. **Press the hub's reset button to reset the signal being sent to the connected displays.**
3. **Is the included external power supply connected and plugged into a working power source?** For the product to function properly, it must be connected to and receiving power from the included external power supply.
4. **Was the power to the DisplayPort source and connected monitors turned off prior to installation?** If not, restart your computer.
5. **What resolution are you trying to attain on each monitor?** DisplayPort 1.4 has a bandwidth of 32.4 Gbps with higher-resolution monitors taking up more bandwidth. Although DisplayPort and HDMI monitors support video resolutions up to 3840 x 2160 on individual monitors, the number of 4K monitors connected at the same time is limited. For example, when connecting 4 monitors simultaneously, you will be limited to connecting 1080p monitors with higher resolutions possible when displaying in video wall mode (e.g., 3840 x 6480 in 1s3 video wall, 11520 x 2160 in a 3x1 video wall, etc.).
6. **What cable lengths are you using?** The maximum cable length between the hub and the connected monitors should not exceed 15 ft. (4.6 m).
7. **What type of cabling are you using?** Inferior cabling can result in poor performance. It is important to use cables that support the video resolution you are trying to attain. It is recommended you use the cables listed in the **Optional Accessories** section, as they have been tested to work with these MST Hubs.
8. **Test your cables to ensure they are working properly.** For example, connect your DisplayPort cables between a source and monitor setup you know works to determine if the cable is functioning properly.

Specifications

Maximum Distance to Display	15 ft. (4.8 m)
Maximum Supported Color Depth	12-bit Deep Color
HDR Support	Yes
HDMI Specification	2.0
DisplayPort Specification	1.4
Chroma Subsampling	RGB, YCC444, YCC422, YCC420
HDCP	1.4 and 2.3
3D Video Support	Yes
Audio	2-channel LPCM, AC3, DTS, Bit depth up to 24 bits, Sample rate up to 192 KHz
Chipset	Yes
IR or RS-232 Extension Support	No
Consumer Electronic Control (CEC) Support	No
Drivers Required	None
Operating Temperature Range	32° to 104°F / 0° to 40° C
Storage Temperature Range	5° to 122°F / -15° to 50°C
Relative Humidity	0% to 85% Non-Condensing
Construction Material	ABS Plastic
Connector/Contact Plating	Nickel/Gold

Warranty

1-YEAR LIMITED WARRANTY

We warrant our products to be free from defects in materials and workmanship for a period of one (1) year from the date of initial purchase. Our obligation under this warranty is limited to repairing or replacing (at its sole option) any such defective products. Visit Tripplite.Eaton.com/support/product-returns before sending any equipment back for repair. This warranty does not apply to equipment which has been damaged by accident, negligence or misapplication or has been altered or modified in any way.

EXCEPT AS PROVIDED HEREIN, WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL WE BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, we are not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise.

FCC Notice, Class B

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications to this equipment not expressly approved by Eaton could void the user's authority to operate this equipment.

Eaton has a policy of continuous improvement. Specifications are subject to change without notice.

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